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Appl. No. 10/604,895
Amdt. dated October 20, 2004
Reply to Office action of August 09, 2004

Amendments to the Claims:

Listing of Claims:

- 5 Claim 1 (currently amended) A re-performable spin-on process comprising:
performing a spin-on process for forming a first dielectric
layer on a semiconductor wafer, the first dielectric layer
being composed of a spin-on glass (SOG) material;
performing an examining step on the first dielectric layer, the
10 first dielectric layer conforming to a predetermined
condition;
performing an etching process for completely removing the
first dielectric layer;
cleaning the semiconductor wafer through use of a wet
15 scrubber;
drying the semiconductor wafer; and
re-performing the spin-on process for forming a second
dielectric layer on the semiconductor wafer, the second
dielectric layer being composed of an SOG material;
20 wherein the semiconductor wafer comprises a plurality of
metal interconnecting wires and the first dielectric layer is
formed over the metal interconnecting wires.
- Claim 2 (original) The process of claim 1 wherein the examining step is a
25 measurement of a film thickness and the predetermined
condition indicates poor thickness uniformity of the first
dielectric layer.

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5 Claim 3 (original) The process of claim 1 wherein the examining step is a
cleanness inspection and the predetermined condition indicates
that the first dielectric layer is contaminated by chemical
solution or particles.

Claim 4 (cancelled)

10 Claim 5 (original) The process of claim 1 wherein the first dielectric layer
and the second dielectric layer are both composed of a
dielectric material having a low dielectric constant.

15 Claim 6 (original) The process of claim 1 wherein the etching process is a
dry etching process.

Claim 7 (original) The process of claim 1 further comprising forming a
barrier layer between the metal interconnecting wires and the
first dielectric layer.

20 Claim 8 (original) The process of claim 7 wherein the barrier layer is a
silicon oxide layer that is formed through performing a
chemical vapor deposition (CVD).

25 Claim 9 (original) The process of claim 1 wherein the etching process is a
wet etching process.

Claim 10 (original) The process of claim 9 wherein the wet etching process
utilizes buffered hydrofluoric (BHF) as an etching solution.

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Claim 11 (currently amended) A re-performable spin-on process comprising:

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performing a chemical vapor deposition (CVD) process for forming a silicon oxide layer on a semiconductor wafer;

performing a spin-on process for forming a first dielectric layer on the silicon oxide layer, the first dielectric layer being composed of a spin-on glass (SOG) material;

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performing an examining step on the first dielectric layer, the first dielectric layer conforming to a predetermined condition;

performing an etching process for completely removing the first dielectric layer;

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cleaning the semiconductor wafer through use of a wet scrubber;

drying the semiconductor wafer; and

re-performing the spin-on process for forming a second dielectric layer on the semiconductor wafer, the second dielectric layer being composed of an SOG material;

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wherein the semiconductor wafer comprises a plurality of metal interconnecting wires and the silicon oxide layer is formed over the metal interconnecting wires.

Claim 12 (original) The process of claim 11 wherein the examining step is
25 a measurement of a film thickness and the predetermined condition indicates poor thickness uniformity of the first dielectric layer.

Claim 13 (original) The process of claim 11 wherein the examining step is

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a cleanness inspection and the predetermined condition indicates that the first dielectric layer is contaminated by chemical solution or particles.

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Claim 14 (cancelled)

Claim 15 (original) The process of claim 11 wherein the first dielectric layer and the second dielectric layer are both composed of a dielectric material having a low dielectric constant.

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Claim 16 (original) The process of claim 11 wherein the etching process is a wet etching process.

15 Claim 17 (original) The process of claim 16 wherein the wet etching process utilizes buffered hydrofluoric (BHF) as an etching solution.